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UWE BRIEM

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01/16/2003

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EXAMINER

ABELSON, RONALD B

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 01/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/194,286

Applicant(s)

BRIEM, UWE

Examiner

Ronald Abelson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18,21 and 22 is/are allowed.
- 6) ☒ Claim(s) 7-9,11,13-17,19 and 20 is/are rejected.
- 7) ☒ Claim(s) 10, 12, and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 7-9, 13, 15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3, 5 and 6 of U.S. Patent No. 09/230,221 in view of Turner (US 5,179,556).

In the instant applicant, regarding claim 1, the applicant teaches "optimizing the utilization of connecting sections in which information is transmitted in data packets" while reference application, in claim 1, teaches "a method for use with systems that transmit information in data packets". Both applications teach a first scheduling method, storing a queue

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identifier in the packet header, and providing a second scheduling method that precedes the first.

The instant application teaches the first scheduler corresponds to lower transmission rates and the second for upper transmission rates. The reference application teaches the second scheduler is for higher transmission rates. Therefore, it is obvious that the first scheduler of the reference application is for lower transmission rates.

The instant application teaches the queue identifier includes information related to a transmission rate while the reference application is silent in this regard.

Turner teaches transmission rate information being present in the packet header (col. 12 lines 4-7).

Therefore it would have been obvious to one of ordinary skill in the art, having both the reference application and Turner before him/her and with the teachings [a] as shown by reference application, storing a queue identifier in the packet header, and [b] as shown by Turner, transmission rate information being present in the packet header, to be motivated to modify the system of reference application by inserting transmission rate information in the packet header. This modification can be performed in software. This would improve

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the system of the reference application by providing a method for both schedulers to obtain transmission rate information.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this

Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7-9, 11, 15-17, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art (AAPA), and further in view of Hayter (US 5,734,650).

Regarding claim 7, the AAPA teaches a method for optimizing the utilization of connecting section systems (fig. 2) in which information is transmitted in data packets (spec: pg. 2 lines 19-23). The system provides for a scheduler (fig. 2 box S) and a queue identifier which is stored in a packet header (fig. 2 elements QID=1..N), pg. 2 lines 19 - 29).

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The AAPA is silent on the transmission rate information being present in header and the use of two schedulers, one for peak cell rate and the other for sustainable.

Hayter teaches providing a first scheduler for scheduling transmission of data packets, which are representative of lower transmission rates (fig. 2 box 30), providing a queue identifier which is stored in the packet header, the queue identifier including information related to a transmission rate of an associated data packet (VCI/VPI, col. 3 lines 35-38, col. 3 line 51 - col. 4 line 2), and providing a second scheduler for scheduling the transmission of the data, wherein the corresponding connection parameters are representative of upper transmission rates (fig. 2 box 30).

Hayter teaches the sustainable cell rate calendar preceding the peak cell rate calendar, while the applicant reverses the order of the two.

Although, in fig. 2, Hayter specifically teaches the sustainable cell rate calendar preceding the peak cell rate calendar, the inventor states that this is merely one example of the transmission rate control process covered by the invention (col. 4 lines 6-15). It would have been obvious to place the peak calendar in front of the sustainable calendar to determine

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if the user is exceeding the maximum allowable bandwidth as soon as possible.

Therefore it would have been obvious to one of ordinary skill in the art, having both AAPA and Hayter before him/her and with the teachings [a] as shown by AAPA, a method for optimizing the utilization of connecting section systems in which information is transmitted in data packets. The system provides for a scheduler and a queue identifier which is stored in a packet header, and [b] as shown by Hayter, providing a first scheduler for scheduling transmission of data packets, which are representative of lower transmission rates, providing a queue identifier which is stored in the packet header, the queue identifier including information related to a transmission rate of an associated data packet, and providing a second scheduler for scheduling the transmission of the data, wherein the corresponding connection parameters are representative of upper transmission rates, to be motivated to modify the system of AAPA by replacing the single scheduler (fig. 2 box S) with two schedulers as taught by Hayter (fig. 2 box 30, 32). This would improve the system by allowing for both peak and cell rate scheduling.

Regarding claim 8, wherein scheduler's employ a weighted fair queueing algorithm (AAPA: pg. 2 lines 21-23).

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Regarding claim 9, providing an input device (fig. 2 box EE) which contains a table / algorithm which includes current storage levels of buffer stores for storing the data packets (AAPA: buffer filling level: pg. 3 lines 2-5, 12-15).

Regarding claim 11, feeding back as a result of reading out the data packets from at least one of the buffer stores representative of the current storage levels of the buffer stores to the input device (AAPA: fig. 2 box AE, EE, spec: pg. 2 lines 7-12).

Regarding claims 15 and 16, the data packets are ATM cells (AAPA: pg. 2 line 21).

Regarding claim 19, feeding back a result of a transmitted data packet to assist in the determination whether the transmission rate of a later data packet should be limited (AAPA: fig. 2 see feedback connection from box AE to EE).

Regarding claim 20, storing a table indicating which connections require limiting during transmission (AAPA: fig. 2 box T).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of AAPA and Hayter as applied to claims 7 and 8 above, and further in view of Hill (US 5,796,944).

The combination of AAPA and Hayter is silent about the time the queue identifier is entered.

Hill teaches the time the queue identifier is entered at set up (initialization, fig. 6 box 274, col. 11 lines 34-36).

Therefore it would have been obvious to one of ordinary skill in the art, having both the combination of AAPA and Hayter and Hill before him/her and with the teachings [a] as shown by the combination of AAPA and Hayter, a method for optimizing the utilization of connecting section systems in which information is transmitted in data packets, a queue identifier which is stored in a packet header, and transmission rate information being present in header, a first scheduler for scheduling lower transmission rate data packets, and providing a second scheduling method for upper transmission rate data, and [b] as shown by Hill, the queue identifier is entered at set up, to be

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motivated to modify the system of the combination of AAPA and Hayter by entering the queue identifier in the packet header at set up. This modification can be performed in software. This would improve the system by ensuring that when cells arrive at the demux the appropriate queue identifiers will be present.

Allowable Subject Matter

7. Claim 18, and 21-22 allowed.

8. Claims 10, 12, and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: Regarding claim 10, nothing in the prior art of the record teaches or fairly suggests a control signal based on the data current storage levels, in combination with the other limitations listed in the claim. Regarding claim 12, nothing in the prior art of the record teaches or fairly suggests influencing the operation of the second scheduler based on the result fed back to the input device, in combination with the other limitations listed in the claim. Regarding claims 18 and 21, nothing in the prior art of the record teaches or fairly suggests an initial planning control signal, in combination with

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the other limitations listed in the claims. Regarding claim 23, nothing in the prior art of the record teaches or fairly suggests comparing the feed back result to data and an adjusting operation for the first and second schedulers, in combination with the other limitations listed in the claim.

Response to Arguments

10. Applicant's arguments with respect to claim 7-9, 11, and 13-17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Abelson whose telephone number is (703) 306-5622. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (703) 308-5463. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.



Ronald Abelson
Examiner
Art Unit 2666



January 10, 2003



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